9511-9656

THE SPIRAL

NOTEBOOK

832

REG. U.S. PAT. OFF.

$5.00 Reward

for return to

Arthur Cronquist

New York Botanical Garden

New York 58, New York

9511 - McVaugh & Cronquist
September 25, 1962
On rocky, limestone soil in desert scrub at mouth of canyon on north side of mountains, Puerto de San Lazaro, 65 kilometers (by map) south of Monclova, Coahuila, Mexico.
Sax shrub up to 6 or 8 dm. tall. Heads dirty whitish. Rays mostly 5, white
Parthenium incanum H.B.K.
Parthenium (10) U.579

9512 - McVaugh & Cronquist Sept. 25, 1962. Same places as 9511 - Rounded shrubs up to about 6 dm. tall. Heads golden yellow. Rays variable in length on different plants, usually 13 in number, sometimes 14 or 15, sterile. achenes quadrangular, without pappus
Viguiera stenoloba Blake

Chrysactinia (8)

9513 - McVaugh & Crosquist. Sept. 25, 1962.
Along roadside.
otherwise as 9511.
Disk golden yellow.
Rays rather light yellow

Haplopappus spinulosus (Pursh) DC., sens. lat.

✓

Haplopappus aff. spinulosus (4)

9514. September 26
Somewhat alkaline
flat grassland 23 miles
northeast of Durango,
State of Durango,
Mexico, along the road
to Torreon. 6310 ft. alt.
Kays
short, fine, white.
Dish dark. Ray-achenes
triquetous, with 3
awn-spines. Disk-achenes
flattened, winged, the
wings prolonged into a
pair of flattened awn-scales
Sanvitalia angustifolia
dupl. det. by A.M. Torrey Engelm
Spiny heads (4)

9515 — Sept. 26, 1962.
Same place as 9514.
Heads golden yellow
Rays 8-13, most commonly
13, neutral, spapposa
Disk achenes hairy,
compressed quadrangular.
Pappus of several finely
purple-spotted, lacerate
scales, the one on the
outer angle awn-tipped

Viguiera dentata (Cav.)
Spreng.

Viguiera (5)

9516 - Sept. 26, 1962.
Same place as 9514.
Heads orange-yellow.
Rays 5.

Bidens ferulaefolia (Jacq.) DC.

✓

Coreopsis 5 rays (1)

9517 - Sept. 26, 1962

Along ditch-banks near the highway, in grassland with scattered acacia, Mimosa, and Opuntia, about 6 miles northeast of Durango, State of Durango, and about 14 miles southwest of Yerbesina, Mexico. Elevation about 6500'. Ray orange (8)-13.

Dysodia papposa (Vent.) Hitchc.

Dysodia - is golden (1)

9518 Sept. 26, 1962.
Same place as 9517.
Pappus of about 10 short scales alternating with and external to as many longer scales which are irregularly dissected into bristles.

Dysodia cancellata Gray

spiny legs. (9)

95 ? - Sept. 22, 1962,
same place? ? ?
Rego perennial
dark reddish, 5-13

Zinnia peruviana (L.)
L.

Lepid. [illegible]

Lamprocaulon 9?1?.

Heads white

[illegible] 3 of the [illegible] distinctly larger [illegible] 2.

Flurettia tripteris DC.

75, 21 - Sept 26, 1962.
[redacted] San Jose
a 5517.
Heads yellow, seemingly discoid, the rays present but very short and inconspicuous.

Dysodia papposa (Vent.) Hitchc.

7522 - Sept. 26, 1962.
Compositae 9917.
Herbarium, Dept 5

Parthenium bipinnatifidum
(Ort.) Rollins

Parthenium (6)

7523 - Sept. 27, 1962
Grassy swale along
the road a mile east
of the outskirts of Durango
on the Durango
Mexico City highway
Rosy pale lavender
to almost white.

Machaeranthera (Psilactis)
boltoniae (Greene) Turner
& Horne

dupl. det. B. L. Turner

324
Grassy flats [illegible] east of the east-
shore of Durango,
state of Durango,
[illegible], along the
road to Zacatecas.
Heads yellow, with
5-6 disk flowers and one
ray-flower, this with
a very short ligule. Pappus
scales alternately long and
short, those on the angles
of the achene long, awned.
Schkuhria pinnata (Lam.) Ok.
var. virgata (Klatt) Heiser
[illegible] temp. (4)

9525 – Sept. 17, 1961
Thin soil over rhyolite cliffs, mesa
southeast of Durango,
state of Durango,
Mexico. 7000 feet.
Mostly semi-desert.
Rare 5 (color 1),
golden-yellow; massed
toward the base with
pappus.

Tagetes patula L.

Fr. 5 cm.

9526

Receptacle naked.

Ageratum salicifolium Hemsl.
ageratum (2)

1527 - [illegible],
[illegible]
- 1530. [illegible]
[illegible], Rays
[illegible], [illegible]
[illegible], probably and
apparently fertile.
Pappus of rather numerous
(ca 15) unequal, deciduous
awns.

Perymenium parvifolium Gray

[illegible]

Virginia

[illegible]

[illegible]

[illegible]

9529 - [illegible] 27
[illegible] sch. brush,
[illegible] rhyolite
[illegible]
6 miles west of Durango, state
of Durango, Mexico. Elevation
about 7000 feet.

[illegible] disc florets
[illegible] corolla,
[illegible] yellow. Rays
[illegible] 13, neutral. Achenes
flattened, with ciliate-margined wings. Pappus none.
Verbesina pantoptera Blake
dupl. det. James Coleman
Verbesina (i)

9530 - [illegible]
Rocky, clayey hillsides, with
[illegible] 6 miles
west of Durango,
alt. 6 [illegible] Elevation 7000 feet.
[illegible]. Stems clustered
on a woody, fibrous-
rooted caudex. Heads
yellow. Rays 8 or few,
neutral, with reduced pappus.
Disk achenes Rainy, with a pap-
pus of 2 palaceous awns and
several short, irregular scales.
Viguiera Cordifolia Gray
var. latisquama Greenm.
Woodyana.
Helianthus [illegible] rays.

9531 - In rhyolitic oak-grass country 9 miles west of Durango, state of Durango, Mexico. Elevation 7500 feet. September 20, 1936. Shrub up to about 6 dm. tall, in rocky crevices and rocky soil. Head white

Stevia salicifolia Cav.

Stevia salicifolia (6)

7532 - Vegetative
27, 1962. Same plant
as 7532. Stems
heavily and stout
reddish tinged.
Flowers distinctly
yellow, though a
bit pale

Brickellia wislizeni Gray

yellow Brickellia (3)

9533 - Legal 27, 1940.

Same place as 9534

1 head bright yellow.

2 dip mostly, 5

standing to be replaced.

95 34 September 27, 1902
With scattered oaks
in rocky rhyolitic
soil 9 miles west of
Durango, State of
Durango, Mexico.
Elevation 7500 feet.
Head yellow. Rays
ca. 20 ±

Xanthocephalum
sericocarpum Gray

Xanthocephalum

9535. September 27
1902. Jamaica
no 1534. Kings
Pinch. Collector,
Morelly 8.

Cosmos parviflorus (Jacq.)
Pers.

Cosmos (2).

T536

Disc florets 55 ♀
Heads bright orange-yellow. Rays mostly 2 or 3. Stem glandular on a compact woody base. rooted
Caudex. Pappus mostly ♀
2 long awns and 2 broad, rather short scales.
Phyllaries 5, only the tips free. Pith flowers 3-6.

Tagetes lucida Cav.

Annual. Tagetes (4)

9537 - September 27, 1962. With scattered oaks on northeast-facing orographic slope, 6 miles west of Durango, state of Durango, Mexico. Stems perennial, solitary, 4-5 dm tall, glabrous-rooted-caudex.

Stevia serrata Cav.

T-38-Sept. 23, 1962
In thin soil on rhyolitic
mesa in pine-oak-pine
woodland about
30 miles west of Durango,
state of Durango, Mexico.
Elevation about 8300 ft.
Plants with a mild
sweet odor resembling
that of celery. Disk
yellow; rays 2-5, soon
decurving, reflexed, white
with a yellow basal spot.

Dysodia (Urbinella) palmeri
(Greenm.) Macbr.

Chromosome number det. by B.L. Turner,
as n = 8.

1539 Lipstan. - 28. IX. 2

On rocky, rhyolitic soil in open oak-pine woodland about 30 miles west of Durango, State of Durango, Mexico. Elevation about 8500 feet. Stems solitary or few together on a short, fibrous-rooted rhizome. Corolla bright pink to purple. Receptacle chaffy, achenes 10-nerved. Pappus of 5 long awns and as many short hyaline scales.

"Stevia pringlei wats." sens. lat.
(not truly a Stevia)

Stevia

Sept. 26, 1902
[illegible] rhyolitic soil
in open oak-pine woodland
[illegible] about 30 miles west
of Durango, state of
Durango, Mexico.
Elevation about 8500
feet. Rays 5, pink.
Disk-flowers white
to ochroleucous.
Pappus of 4 retrorsely
barbellate awns, three equal
or two of them shorter.
Cosmos linearifolius
(Sch.-Bip.) Hemsl.

(3)

Liabum palmeri S. Wats

[illegible] mostly solitary
from short, fibrous-
[illegible] caudex, with one
[illegible] two large, thick,
firm basal leaves.
Heads white.

Cacalia pachyphylla
sch.-Bip.

✓

Cacalia pachyphylla (5)

– September 28, 1962

Same place as 9540

Plants shrubby at the base, but the stems of the season's growth are delicate. Heads yellow. Rays mostly 8

Bidens angustissima HBK.

Cardenas (5)

9544 - Kept 23 1760.
[illegible] 93.
Stems [illegible]
[illegible] rather
[illegible]
[illegible] purplish

Brickellia solidaginifolia
Gray

9545 - Sept. 28, 1962.

Same place as 9540

Stems bare on their
woody part and sandy.
Flowering revealing long
branches, mostly from
below the middle,
Heads yellow, with
about 12 - 16 rather
short rays, these neutral,
their achenes with pappus of scales
only. Disk achenes hairy, with
a pappus of 2 awn-scales and
a few short, irregular scales.
Viguiera hypargyrea Greenm.

(3)

Sta. 6. Sept. 28, 1962. Usually banks along the roadside in open pine-oak woodland about 30 miles west of Durango, state of Durango, Mexico. Elevation about 8500 feet. Heads yellow, with about 16-20 rays

Chrysopsis

Haplopappo (?)

9547 - Moist edge of low meadow along grazed roadside in pine forest country 3½ miles west of Durango, Colo. white, mostly 17-25. Disk yellow 5200 feet elevation

[illegible] coll. #9547, Erigeron coronarius Gr[illegible], [illegible] much resembling it, [illegible] for the [illegible] [illegible] [illegible].

Astranthium orthocodon (Rob. & Fern.) [illegible]

dupl. det. Dick C. D. DeJong [illegible]

9-5 [illegible]

[illegible] Lamont

5-7. [illegible]

[illegible]. Growing

with #1547, Astranthium

orthopodum,

[illegible]

[illegible]

[illegible]

[illegible]

Erigeron coronarius Greene,

dupl. det. Dick C.D. DeJong, 1963

collected repeatedly in the

Sierra Madre west of Durango,

~~may represent an undescribed~~

~~variety or species.~~ (4) ✓

Erigeron

9549 - September 28, 1962
Same place as 9547.
Heads whitish.
Growing with #
9550, Conyza filag-
inoides, and closely
resembling it in
aspect, but appar-
ently wholly distinct

Conyza gnaphalioides HBK.

C. V. - September 28, 1962.
Same place as 9547.
Heads whitish,
Growing with #9547,
Conyza gnaphalioides HBK,
and closely resembling
it in aspect, but
apparently wholly
distinct.

Conyza filaginoides (DC.)
Hieron.

✓

Conyza sp. 2

9591 - September 28, '96.
Roadside clump in
meadow in pine forest
country 34 miles west
of Durango, state of
Durango, Mexico.
Elevation 8300 feet.
Stems clustered on a
rounded sprout. Heads
nodding, nearly or quite
naked.

Kuhnia oreithales Rob.

Heads (?)

1552 September 28
Moist. sloping.
Open meadow in
pine forest country
about 50 miles
west of Durango and
3 miles north of
Los Coyotes, state of
Durango, Mexico.
Alt. about 8000
feet stems solitary from
a cluster of filiferous roots.
Flowers rich red-purple,
stiffly pointed. Slightly
paler beneath than above.
Perezia wislizeni Gray
Perezia

9953- Sept. 28, 1962
Same place as 9540,
Disk yellow. Rays
white. Plants
mostly pistillate

Achaetogeron griseus
Greenm.
dupl. det. Dick C.D. DeJong
1962.

(1)

955 Sept. 29, 1902
Open pine-oak wood
land on top of plateau
about 8 miles north
of Los Coyotes railroad
station, and about 50
miles west of Durango,
state of Durango, Mexico.
Republic. Lichtfeldt
Elevation about 8100 feet.

Conyza confusa Crong.

V

7755 Rept 2? ??

Same place as 7554.
Stems solitary or few
from a cluster of fibrous
roots. Heads white.

Stevia rhombifolia HBK.

1546 - Sept. 09, 1962

Locality 25955 H.

Stems solitary or few
from coarse, woody
taproot. Flowers
white or slightly
perplish.

Eupatorium hyssopinum
Gray

9557 - Sept. 29, 1962.

[illegible] soil on rhyolite
rocks in open oak pine
forest atop plateau in
the Sierra Madre
[illegible] about 30
[illegible]

Ray achenes enfolded by the
outstanding bract.

7558 [illegible] 29
[illegible] In light shade
in [illegible]
[illegible] Type
[illegible] 9997,
[illegible]
[illegible].
[illegible]
Pappus of 2 long awns and
some short, more or
less connate scales.

Tagetes foetidissima DC.

V

agetinae

9559- September 29, 1960.
Same plant as 7534.
Involucral bracts
whitish, tinged with
yellow. Flowers
yellowish.

Gnaphalium gracile HBK.

[illegible] - Sept. - 29, 1962
Found dredging for
wet swale in open
pine woodland strip
Plates in thick
Madre acidic to [illegible]
[illegible] of
Durango and 3 miles
west of the Laguna
railroad station, 4 [illegible]
of Durango, Mexico, about
Rio about 13, [illegible]

Choptalia pachulata (Don.)
Hemsl.

Choptalia

9561 - Sept. 21, 1911

In open pine woods
clay plateau in the Sierra
Madre occidental, about
5 miles west of Durango,
and 9 miles north of
Los Coyotes railroad
station, state of
Durango, Mexico.
Elevation about
8100 feet. Head yellow

Xanthocephalum
benthamianum Hensl.

Hemsley (?)

9562 [illegible] 21, 1936.
In shallow standing
water in open pine-oak
woods at top of mesa in
Sierra Madre Occidental,
about 55 miles west of
Durango, on trail
north of Los Coyotes
mines, Tarahumara,
state of Durango, Mexico.
Head yellow. 100 feet
elevation. Heads with 6-9
disk-flowers and 0-2 inconspicuous
short rays. Pappus none.
Phyllaries 3 or 4, only the tips free.
Pectis connata Crong. sp. nov.
in vol. (10)

9363 - September 30, 1962
Steep slopes of the Quebrada
San Juan; Sierra Madre
Occidental, about 50 miles
west of Durango and 23
miles northwest of Los
Coyotes railroad sta-
tion, state of Durango,
Mexico. Open pine-oak
woodland, with Cupressus
in the canyon bottoms.
Rhyolite rock, [illegible]
at 7000 feet. Disk yellow,
Ray yellow, 5, seldom 6
Bidens triplinervia

1 To [illegible] 30, 1962

[illegible] 1962.

Stems mostly solitary [illegible] thick, [illegible] Rays and disk yellow the rays sometimes 21, sometimes only 13 [illegible] from [illegible] alternate. Rays neutral.

Viguiera parkinsonii (Hemsl.) Blake

Flowers (2) 5–7 in each head.
Pappus none.

Calea scabra (Lag.) R. ob.
var. longifolia (Lag.) R ob.

56 [illegible] 32.1.62
[illegible] place on 7563
[illegible] rabbits, [illegible]
[illegible] short, slightly
[illegible] scarcely [illegible]
[illegible] spirit. Rays red
[illegible] yellow, therays
[illegible] about 13,
[illegible] 3,
neutral. Achenes thickened,
epappose.

Viguiera ciliata (Rob. & Greenm.)
Blake
var. bispida (Gray) Blake

1967 September 30, 1967
In thin soil amongst
rhyolite cliffs and
outcrops in the Quebrada
San Juan; Sierra Madre
Occidental, about 50
miles west of Durango
and 23 miles northwest
of Los Coyotes railroad
station. Open pine-oak
woodland region, with
Cupressus in the canyon bottoms.
About 7000 feet elevation.
Disk yellow. Rasp white, about 30
Achaetogeron affinis Gray
dupl. det. D.C.D. DeJong j
(9)

63 - September 30, 1962. Lawnplace 1 = 1567. Dish yellow. Raywhite, about 13.

Perityle spilanthoides (Sch.-Bip.) Rydb

V

Pauly 62 (9)

9569 - August 30, 1932
In pockets of soil on rhyolite rocks along a tributary canyon to the Quebrada San Juan; Sierra Madre Occidental, about 50 miles west of Durango and 22 miles northwest of Los Cuyotes, state of Durango, Mexico. Elevation about 7300 feet. Heads white.

Eupatorium rubricaule HBK.

Eupatorium (1)

1570 - Leptendra 30,192
Edge of sloping moist
meadow in open
pine-oak woodland
region, Sierra Madre
Occidental, about 50
miles west of Durango,
and 22 miles northeast
of the Leptendra railroad
station, State of
Durango, Mexico. 7500 feet
Stems solitary from a
short, fibrous-rooted
crown. Involucre very
sticky. Heads purple.
Cirsium grahami Gray
Leaves (5) det G.B. Ownbey

9571 – September 30, 1962.
Rocky (rhyolitic) soil in
the canyon of the Rio Jaral,
Sierra Madre Occidental,
about 50 miles west of
Durango and 15 miles
northwest of Lerdo
railroad station, state
of Durango, Mexico.
Elevation 7100 ft.
Chromosome number det. by
B. L. Turner as n = 9.

Achaetogeron pinnatifidum Gray
dupl. det. D. C. D. DeJong

[illegible] September 30, 1971
Some place on 9 5 71.
Stems 1 or solitary
on a carrot-like
taproot. ~~Flowers~~
~~yellowish, or the~~
~~corolla tube partly~~
~~purplish.~~

Kuhnia leptophylla
Scheele, sens. lat.
(K. rosmarinifolia Auctt.)

Disk achenes (young) long-pilose,
especially on the margins, and
with 2 antrorsely barbed awns

[illegible] - Oct. [illegible], 1962

Specimens in rocky hills
cliffs on the east side
of the canyon of the Rio
Grande; Sierra Madre Occi-
dental, about 30 miles west
of Durango and 15 miles
northwest of the Durango
railroad station, state of
Durango, Mexico. Elevation
7100 feet. Head yellow,
neutral, opaque
with 5 narrow yellow
stripes on the back. Tip
beginning to flower. Chromo
some number det. by B. L. Turner
as n = 12.

Coreopsis petrophila Gray

October 1, 1954

Open pine-oak woodland on the canyon of the Rio Conchos; 6 miles south of Ojinaga and 15 miles northeast of the Coyame railroad station, state of Chihuahua, Mexico. Rocky (rhyolitic) soil. Elevation 7100 feet.

Stems few or solitary on a stout, woody, fibrous-rooted caudex. Corolla violet (c) bright blue.

Chromosome number det. by B. L. Turner as 2n = 30 (all univalents)

- October 1, 1962

Same plan as 5 74.
Rays and disk orange,
the rays up to 13 in
number. Ray achenes
triquetrous, 3-winged.
Disk achenes flattened,
the margins continuous
with the 2 pappus awns.
Pappus scales none.

Zexmenia podocephala
Gray

1

- October 1, 1962

Rocky rhyolitic slopes in the canyon of the Rio Jaral, Sierra Madre Occidental, about 50 miles west of Durango and 15 miles northwest of Los Coyotes railroad station, state of Durango, Mexico. Mexican Node. Plants up to 2.5 m. tall from a cluster of tubers. Rays bright orange. [illegible] Dahlia coccinea Cav. var. palmeri Sherff

[illegible]

(7)

15 "7 [illegible] 761

[illegible] receiving single
[illegible] smooth, branching,
[illegible] stout, [illegible]
[illegible], [illegible] scale
[illegible] heads [illegible] ding,
with white corolla
and yellow anthers
and styles

Cacalia sessilifolia
H. & A., sens. lat.

5515 — October 1, 1962

In mod. open small pond on rhyolitic plateau in open pine-oak woodland; Sierra Madre occidental, about 50 miles west of Durango and 8 miles northeast of Los Coyotes railroad station, state of Durango, Mexico. Elevation about 8100 feet. Rays 10-13, white above, pinkish beneath.

Jaegeria glabra (S. Wats.) Rob.

Calyptocarpus? (6)

9579 - October 1, 1962
In thin soil on flat-rock (rhyolite) outcrops around embedment in open pine-oak woodland region; Sierra Madre Occidental, about 50 miles west of Durango and 4 miles northwest of Los Coyotes railroad station, state of Durango, Mexico. Elevation about 8000 feet. Flowers pink-purple, 4. Phyllaries 6-8. Pappus of (4)5 longawns and as many hyaline short scales. Carphochaete wislizeni Gray

9580 - Oct 2, 1904
[illegible] weeds in
the Lerma Madre
Occidental (about 10
miles west of El
Salto, state of Durango,
Mexico. Rhyolite the
underlying rock.
Elevation about 8000
feet. Rays 5, yellow.
Disk yellow.
Rays sterile, 2 pappose.

Bidens triplinervia HBK.
var. macranthaloides Sch. B.

9553 - October 2, 1962
Same place as 9580
Rays white; disk yellow.

1582 - Sept. 2, 1962
In thin soil on
rhyolite rock in open
pine woods; Sierra
Madre Occidental,
6 mi. E. of mile post
#92 Valle, State of
Durango, Mexico,
Elevation ca. 8300
feet. Perennial,
branched, 1 ft. to
2 ft. tall with
the odor of licorice.
Heads discoid or with a slight
short white ray; disk yellow
Tagetes micrantha Cav.
Tagetes (5)

Ray florets 5-8 (-10), white, 3-toothed, 2.5-4.5 mm long, 1.5-2.5 mm wide.

Disk florets 50-80, yellow, 4-5 mm long, 1.5-2 mm wide.

Heads greenish-yellow, discoid or with a single ray whorl, hemispherical, 4-5 mm high, 5-8 mm wide.

Phyllaries about 10 mm long, green, blunt scales, ciliate hairs, "pappus-like" rays like that of Galinsoga subdis. parviflora

Dish-flowers 2-5 mm long with a pappus of 2 long awns, ray florets with 2 awns, disc scales, but some individuals with 4 awns

(over)

7584. October 2, 1962
S. exist. grazed meadow
in the Sierra Madre Occidental, about 10 miles
west of El Salto, ~~Durango~~
~~state~~ State of Durango,
Mexico. Elevation
about 8800 feet.
Flowers ~~pink~~ pale
pink.

Stevia clinopodioides
Greenm.

✓

Florencia J.

9583 - Oakland, 1962.
Same place as 9584

Melampodium [illegible]
Wats.

1506 - October 2, 1962.
Same place as 1502.
Ray: 0-5, minute,
white, [illegible]
[illegible]
about 1 mm [illegible]
distally fringed-ciliate.
Ray achenes with [illegible]
[illegible]
[illegible] 5 mm [illegible].

Galinsoga semicalva
(Gray) St. John + White

(5)

[illegible] - Oct. [illegible]

Same place as 1760.
Stems arising in loose
clusters from many
stout, branching,
somewhat Iris-like
rhizomes. Rays and disk
yellow, the rays 0-3
on different heads in the
same inflorescence.

Senecio seemannii Sch.-Bip

1958 October 2, 1962
same place - 9582

Chapter 5

7589 – October 2, 1902
Dripping rhyolite
cliffs on the west side
of the Sierra Madre
Occidental, near El
Palmito, about 5 miles
southwest of El Salto
and 10 road miles from
the border of Sinaloa,
State of Durango, Mexico.
Elevation 7800 feet.
Perennial, woody toward
the base, the stems of the
season sharply 4 angled.
Rays mostly 5, pink or
sometimes white. Pappus none

Birds (8)

[illegible] (Polypodiaceae)
[illegible] southern foothills of the Sierra Madre occidental, oak forest zone, 4 miles southwest of Santa Lucia and about 50 miles east of Mazatlan, state of Sinaloa, Mexico. Elevation about 4000 feet. Low, creeping shrub up to about 3 m. tall. Rare and dioecious. Spores 7–9, fertile.

Zexmenia fasciculata Sch.-Bip.

Zexmenia (G.) V

9591 - October 3, 1962

Las moscas pican en
[illegible] Tarumba
12 miles southeast of
Acapulco, state of
Mayan, Mexico.
Elevation about 150 feet.
Plants light, moisture
average, medium
5 to [illegible]
[illegible]
[illegible]
[illegible]

Melanoplus differentialis
(Rich.) DC.

Sept 2 1961

Frequent palm-savanna, xerophytic ground cover, 12 miles southeast of Acaponeta, State of Nayarit, Mexico. Elevation about 150 feet. Rays about 8, darkened. Disk orange-red. Rays fertile, with 1 irregularly 3-nerved achene. Disk achenes flattened, with 2 unequal awns and some short scales.

Zexmenia zinnioides Hemsl, ✓
red comp. (1)

Same place as T592
Stems several from
a compact, woody,
ligneous-rooted
caudex. Flowers
blue-lavender.
Receptacle naked.

Ageratum salicifolium
Hemsl.

Collection (7)

[illegible] Feb. 3, 1962.
[illegible] rocky outcrops in gravelly [illegible] savanna 12 mi. southeast of Acaponeta, State of Nayarit, Mexico. Elevation about 150 ft. Perennial herb with woody, fibrous-rooted caudex, sometimes essentially herbaceous and only a few dm. tall, sometimes shrubby below and up to 15 dm. tall. Leaves very rough and

firm. Heads yellow,

mostly with about
5 or about 13 rays,
these pectillate, with
triquetrous achenes. Disk
achenes flattened, with a
pappus of 2 long, linear
awns and 2 short, broad,
lacerate scales which
may be partly adnate
to the awns.

Zexmenia helianthoides
(DC.) Gray

N. Mex. Smith (8)

9575 - Sept. 3, 1962.

[illegible] near Tepic,
[illegible] mile Northeast of
Compostela, State of
Nayarit, Mexico.
Elevation about 150 feet.
Plants up to about 1 m.
tall. Rays mostly about
8, sometimes 13, typically
orange with yellow
center stripe, sometimes
wholly orange, or
wholly yellow, or
even almost pure white.
Zinnia angustifolia HBK.
Zinnia [illegible]

196 - October 4, 1962

Sprawling weed in dune region along the coastline just above La Laguna, Crater Lake near ~~miles~~ of Santa Maria del Oro and 30 road miles southeast of Tepic, State of Nayarit, Mexico. Growing among low bushes about 2 feet. Rays and disk flowers, the rays mostly 5, occasionally 6 to 8.

Sclerocarpus divaricatus
(Benth.) Benth. & Hook.

Dupl. det. Charles Feddema

5597 - Oct 6 - 4 1/2
brush vegetation
along the roadside
just above La Laguna,
crater lake miles
N. Santa Maria
del Oro and 30 road miles
southeast of Tepic,
state of Nayarit, Mexico
Elevation 2700 feet
Coarse, fibrous-rooted
sunflower - like annual
1-1½ m. high, with inflated
peduncles. Ray bright bright
orange, about 13. Disk
Tithonia rotundifolia (Mill.) Blake
Talbenia (?)

[illegible] - October 4, 1912.
[illegible] and
[illegible] just above [illegible]
[illegible]
Fibrous-rooted [illegible]
about 1 m. tall.
[illegible]
[illegible]

Trigonospermum floribundum
Greenm.

[illegible] Oct 6 1902
[illegible]
[illegible] ranging high
[illegible] bank [illegible]
[illegible] along the
[illegible] to Laguna
[illegible] Santa Rosalia
[illegible] and about 10
[illegible] mile. [illegible]
[illegible] Specimens of
Margarita, Madrino. 2200
feet. Stems solitary,
1-3 m. tall, [illegible]
Heads numerous. Receptacle
chaffy, with very slender pales.
Eupatoriastrum triangulare
(DC.) Rob., sens lat.
Eupatorium

9600 - October 4, 1962.
At lower edge of road just in
center of town of Jaguey
near Santa Maria del
Oro, and about 30
road miles southeast
of Tepic, state of
Nayarit, Mexico.
Elevation 3450 ft.
Stem simple or a
few-branched from
base. Rays 8, white to light
yellow.

Sclerocarpus

9621 - Ave. ht. ... m.
Shaded places in pockets of trees (notably Bursera spp.) on rough lava flow at the base of Volcan Ceboruco, about 6 miles northwest of Ahuacatlan, state of Nayarit, Mexico. Elevation 3200 feet. Flowers greenish

Carminatia tenuiflora DC.

... meadia (8)

Liabum caducifolium Rob. &
Bartl., vel aff.

/

Liabum (7)

9-13-Oct-4 ST-2
Same plant 1601

Elvira biflora (L.) DC.

Chromosome number det. by B. L. Turner, from flowers in a single head, as not uniform; some with 33 univalents, some with 11 pairs and 11 univalents, and some with 33 pairs.

(4) ✓

Stevia viscida HBK.

9 [illegible] 4,000 ft.
Grassy hillside
association.
Stems clustered,
coarse, woody, [illegible]
Heads yellow. Rays about
21, [illegible] to
1.5, about 2.5-3 cm. long,
sterile.

[illegible] 1 m. taller, little
more, thicker, leaves
more deciduous

Viguiera pachycephala (DC.)
Hemsl.

9606 - [illegible] U.P. 2
Same as 9604
Stems clustered on
coarse, branching,
fibrous-rooted
base. Canada.
Flowers red-purple.
Leaves grey-green,
whole [illegible]

Bolanosa coulteri Gray

9.27. October 1962

Common along the road-
side for a short dis-
in grassy second growth
scrub area 7 miles east
of Zapotlanejo and
about 30 miles east of
Guadalajara, state of
Jalisco, Mexico. Elevation
6200 ft. Plants 2-3
m. tall, but not
really woody, not yet
in flower.

Senecio heracleifolius
Chromosome number det. by
B. L. Turner as n = 30

Hemsl.

Senecio (5)

9605 - October 6, 1962

Grassy, [illegible] pasture with Agonis, Mimosa, Lysiloma, and Lysiloma, 7 miles east of Zapotlanejo and about 30 miles east of Guadalajara state of Jalisco Mexico. Elevation 6[illegible] ft. Dark yellow ray minute white. Ray 3, fertile, Disk flowers 3, sterile or one fertile, with 5-toothed corolla.

Galeana pratensis (HBk.) Rydb.

Galeana (9)

9608 Saturday, 1962
[illegible]
Slept approximately 3.5
hr. Still quite stiff
up b.c. Thigh. Diet
[illegible] Hyperbate,
5-10, Montezuma 8,

Montezuma

9609 - October 6, 1942.
Open second growth
mostly grass and small
trees, 7 miles east of
Atotonilco and about
[illegible] miles east of Guadalajara
State of Jalisco, Mexico.
Elevation about 6300
feet. Large shrub or small
tree up to 5 m. tall, the
trunk up to 1.5 dm. thick,
bark yellow, muricate,
melliferous, with 5-8
achenes long hairy
rays. Pappus of 2 awn-scales and
several shorter, narrower
awn-like scales. Rays neutral.
Viguiera quinqueradiata (Cav.) Gray

610 - October 6, 1962

In open wood growth with grass and small bits, 1 mile west of La Piedad, Michoacan. Elevation 5600 ft. Rays mostly 8, the upper side with deep orange-red strips and narrow golden margins, the lower side paler.

Zinnia haageana Regel

Zinnia (10)

9611 - October 6, 1962
Same place as #9610.
Heads yellow. Rays
mostly about 8,
sometimes up to 13,
neutral, opaque.
Achenes / cottony but
not winged. Pappus a
pair of awn-scales.

Simsia foetida (Cav.) Blake

Simsia (T.)

96 2- October 6, 1962
In basaltic ravine with
Burseras, 7 miles west
of La Piedad, state of
Michoacan, Mexico.
~~Michoacan, Mexico,~~
Elevation 5600 feet.
Heads yellow, with
mostly 8 rays. Stems
elevated 2-3 a more or
less fibrous - rooted
base. Rays fertile. Achenes
conspicuously winged.
Pappus of 2 awns and some
shorter, + ground scales.
Zexmenia hispida (HBK) Gray
(5)

9613 - [illegible]

In open, grassy second-growth - brush country 7 miles west of La Piedad, state of Michoacan, Mexico. Elevation 5600 ft. Heads yellow, with mostly 3-5 rays.

Melampodium oblongifolium DC.

9614 - [illegible] 5, 1962
Same place as 9608
Shrub up to about
3.5 m. tall, with
stems up to 6 cm.
thick. Disk yellow,
ray white, 5-10,
most often 8.

Montanoa purpurascens
Robins. & Greenm.

Mexico (9)

9615 Oct. 7, 1962

Overgrazed pasture, with Prosopis, Karwinskia, Jatropha dioica, and cacti, 25 miles west of Huichapan ~~and 6 mi. east~~ ~~of Queretaro~~, state of Hidalgo, Mexico. Elevation about 7100 ft. Disk yellow. Rays mostly tubulate or slightly ligulate, some reflexed.

1962

Compositae 965

Shrubs 6-15 dm. tall

Rays 2-5, white.

Chromosome number det. by

B. L. Turner as n = ca. 19

Montanoa tomentosa Cerv.

Montanoa (C)

[illegible] 7, 1942

[illegible] 6-15 cm. tall.
Heads yellow, with
4-7 rays, disc
brown, with a ring of
several irregular rows.
Ray-florets without
pappus

Zaluzania augusta (Lag.)
Sch.-Bip.

Verbesina serrata Cav.

Aphanostephus ramosus
(DC.) Gray, sens. lat.

9620 – October 7, 1962
On east base of stratified
(metamorphic?) hard-rock
cliffs, 14 miles east
of Huichapan, state
of Hidalgo, Mexico.
Elevation 7200 feet
Shrubs 2-3 m. tall.
Disk yellow. Rays
white, about 8.

Montanoa purpurascens
(DC.) Sch.-Bip.
Chromosome no. det. by
B. L. Turner as n=ca. 19.

Compositae ✓

962 - October 7, 1962.

Same place as 9620.

A single shrub 2.5 m. tall, with the putative parents. Disk faintly ochroleucous. Rays 5-8, white, intermediate in size between those of no. 9621 and no. 9622.

Chromosome number det. by B. L. Turner as n = ca. 19, putative hybrid: Montanoa tomentosa (#9622) X M. purpurascens (#9620).

9622 - October 7, 1962.
Same place as 9620
Shrubs 1.5 - 2.5 m. tall.
Rays and disk white,
the rays 1 - 5

Montanoa tomentosa Cerv.

✓

smaller Montanoa (?)

9623 [illegible]

[illegible] open grassy slopes
[illegible] 14 miles east of
Huichapan, Hidalgo,
Mexico. Elevation 7200
feet. Plants odorous.
Leaves glaucous.
Corolla reddish-purple
[illegible] conspicuously
[illegible] glandular.
[illegible]

Penstemon

7624 - [illegible]
[illegible]
Disk yellow.
Ray tiny, white

Machaeranthera (Psilactis)
brevilingulata (Sch.-Bip.)
Turner & Horne.
dupl. det. B. L. Turner

Psilactis

9625 - [illegible]
Crevices in east-facing stratified hard rock (metamorphic?) cliffs 4 miles east of Huichapan, state of Hidalgo, Mexico. Elevation 7200 feet. Cover of herb about 1.5 m. tall. Heads yellow, just beginning to flower. Chromosome number

det. by B. L. Turner as n = ca. 27.
Trixis radialis (L.) Kuntze

Trixis? (L.)

9626 - Oct. 7, 1
Desert hillsides, lime-
stone the underlying
and outcropping rock,
7 miles southeast
[illegible] Hidalgo, Mexico. Eleva-
tion about 6400 feet.
Shrub 1-2 m. tall. The
dominant species giving
character to the vegetation
Herds yellow, with mostly
9-10 rays, now mostly
pistillate. Stems, leaves
involucres [illegible]
Ray sterile. Achenes flattened, ciliate-
margined. Pappus of 2 awns. Flourensia
shrub, 1-2 m. (7) resinosa
(Brandegee) Blake

9607 - [illegible], June 7, 1962.

In desert characterized by Flourensia resinosa 5 miles southeast of Ixmiquilpan, state of Hidalgo. Elevation 6400 ft. Sheet 12-15, collected [illegible]

Townsendia mexicana Gray

✓

[illegible]

Same [illegible]

Heads about 1 in. [illegible]

Heads yellow with [illegible] about 8 rays.

Rays neutral, with veined [illegible]. Achenes hairy.

Pappus of 2 unequal [illegible] scales and several shorter, lacerate-tipped, more or less connate scales.

Viguiera trachyphylla Blake

(8) ✓

October 7, 1962

Campanula sp. 6

Disk yellow.

Ray flowers about 5, white, with more or less well developed stamens, commonly with a trilobed ligule and 2 evident but short lobes on the innerside.

#9650 October 8, 1962

Uncommon, from the tropical broad-leaved forest on north slope, 2 or 3 miles east of Xicotepec de Juarez, state of Puebla, Mexico. Elevation about 4100 feet. Left shrubs to about 5 m. tall, with leaves up to 6 dm. long. Inflorescence terminal, large, much branched. Heads yellow, with mostly 5 rays.

Senecio grandifolius Less.

Chromosome no. det. by B. L. Turner as n = ca. 30.

Senecio (7) ✓

9631 - October 9, 1962

In brush along the road
[illegible] the mountain
[illegible] directly south of
Valle [illegible] and
[illegible] 109.
north-northeast
[illegible] Caparra, etc.
[illegible] Trujillo Alto
[illegible]
[illegible] about 15
ft. tall. Heads white,
the [illegible] turning
[illegible] in age.

Clibadium arboreum ✓
Donn.-Sm.

7632 - October 9, 1902
[illegible]
[illegible] by
twisted petioles.
Disk orange, rays,
dark orange

Hidalgoa ternata Llav.

✓

(Hidalgoa (3)

9633 - October 18, 1962

Dripping pelvic cliffs on north side of mountains directly south of Valle Nacional, and about 109 road miles northwest of Oaxaca, state of Oaxaca, Mexico.

Elevation about 1800 ft.

Vine, shrub, herb, prostrate. Fls. Disk yellow. Ray short, ca. 6 to 8.

Chromosome no. det. by B.L. Turner as n = ca. 16.

Calea integrifolia (DC.) Hemsl.

Calea? (G)

Oct. 10, 11, 12
Along the road in
tropical pine forest
in the mountains, about
10 road miles [redacted]
[redacted] of Villa
Nacional on road 104
[redacted] Congress,
[redacted] Yuma,
[redacted] Tropical
Low [redacted] fibrous-
rooted shrub. Stems
erect, sparingly branched,
[redacted] annual, about
2 m. tall. Heads yellow,
discoid. Not common
Schistocarpha oppositifolia (Kunth) Rydb.
3

along the roadside in
cloud forest in the
[illegible] 20 road
miles south [illegible] of
Valle Nacional and
94 [illegible] north northwest
[illegible] of Oaxaca,
[illegible] about 3 m. tall,
5200 [illegible] single-
[illegible] leaves
about the middle, short-
[illegible]. Heads yellowish, discoid
[illegible] of about 50 capillary
bristles.

Road about the road
side in clayey soil
in the open. Trees 2
rods south
Valle Nacional and
about 94 miles north northeast of
Oaxaca, State of Oaxa-
ca, Mexico. Elevation about
2 200 feet. Rather shrubby
3-4 m. tall, with
pink-lavender flowers.

Stevia microchaeta Sch.-Bip.

(5)

9637- October 10, 1942.
In cloud forest in the
mountains 22 miles
south ~~west~~ of Valle
Nacional and about
86 miles north-northeast of
Oaxaca, state of Oaxaca,
Mexico. Elevation
about 6600 feet. Soft,
branching, shrubby
shrub about 3 m. tall.
Flowers blue. Plant
with a rather resembling that of turpentine
Eupatorium araliaefolium Hemsl.

9638 - October 10, 1962
same place as 9637.
slender, single-stemmed soft-shrub 2-3 ft. tall. Heads yellow with 5 rays.

Senecio liebmannii
Buchinger

Senecio

9639- [illegible]
Openings at edge of moist forest where the pines are beginning to be mixed with the angiosperms, near the summit of the mountains about 35 [illegible] miles south of Valle [illegible] and 79 [illegible] northwest of Cayaya, state of Cauca, Mexico. Elevation about 7,500 feet. Leaf shrubs 2-4 m. tall, leaves somewhat shiny above. Inflorescence terminal,

umbellately clustered
main branches which
are regularly cymosely
branched to form a large
flat-topped inflorescence.
Disk orange. Rays 2 or 3,
yellow.

Senecio uspantanensis
(Coulter) Greenm.

Genesis

9640- Oaxaca
Along the roadside in
mixed angiosperm-pine
mist forest on the
top of the mountains
about 35 road miles
south of Valle Nacional
and about 79
miles north of Oaxaca,
state of Oaxaca, Mexico.
Elevation about 7000 ft.
Stems about 1 m. tall
becoming woody toward
the base, ranging from a
fourth of an inch
to half an inch in
diameter, black
when dry, slightly

Eupatorium aschenbornianum
Schauer

Eupatorium (4)

964. October 11, 1962
Weed along the roadside
in moist mixed forest
(angiosperm - pine) region
near the summit of the
mountains about 35 road
miles south of Valle
Nacional, and about
79 miles northeast of
Oaxaca, State of Oaxaca,
Mexico. Elevation about
7800 feet. Plants fibrous-
rooted, short-lived
(perhaps annual) several-
stemmed from the base.
Heads yellow with 8 rays.
(10 mm.)

Phytocaitd.

Siegesbeckia jorullensis
H BK. (Distinct from
S. orientalis?)

✓

Siegesbeckia (6)

Steep wet slopes in wet forest (mixed angiosperms and pine) near the summit of the mountains about 35 road-miles south of Valle Nacional and 79 miles north of Oaxaca, state of Oaxaca, Mexico, elevation 7800 feet. Shrub 2-4m. tall. Pedunculate.

Eupatorium ligustrinum DC.

Eupatorium (7)

96[illegible] - October 11, 1962.

Open places along the roadside 1.5 miles [illegible] Pachuca.

[illegible] State of Oaxaca, Mexico.

Elevation 8600 feet.

Pine-forest vegetation.

Branching shrub or semi-shrub mostly 1-1.5 m. tall. Heads yellow, with (7) 8-13 rays. Rays neutral, 9 approx. Disk achenes flattened, wing-margined, the wings ciliate; pappus of 2 awns.

Verbesina hypoglauca Sch.-Bip.
dupl. det. James Coleman

9644 - October 11, 1962

Steep, gravelly, (relative)
slope, with scattered
rocks, just north of
the pass between Oaxaca
and Tuxtepec, state of
Oaxaca, Mexico.
Elevation about 1500 ft.
Plants branched low
down, 1-3 dm. tall.
Ligules white.

Gnaphalium rhodanthum
Sch.-Bip., vel aff.

Gnaphalium

965. Ostola-Lind. 1862.
Lindley 9644

Gnaphalium rhodanthum
Sch.-Bip. vel aff.

Ursophalium

7645. October 11, 1962.
Schistose, gravelly
slopes at the pass
between Ocotlan and
Tlacolula, with
scattered pines and low
shrubs, state of
Oaxaca, Mexico. Elev.
Elevation about 9500 feet.
Rays mostly 8, white, with
deeply cilolated ligule and a
pair of minute lobes, and with abortive anthers
Disk
yellow at first, turning
white as the flowers open.
Pappus none.
Microspermum debile Benth.
Cerro Microspermum

9647 - Eupatorium glaucum
Sprosshöhe 2-3 (6) dm.
Köpfe mit 5 ring. linien
Blüten rosa.

Eupatorium glaucum
Schultz-Bip.

✓

Eupatorium

7646 - October 11, 1962

In moist forest one mile
and two-tenths of the
pass between Oaxaca
and Tuxtepec, state
of Oaxaca, Mexico.
Elevation about 7300 feet.
Slender shrub 1-2 m.
tall, with [illegible]
[illegible] flowers yellow.

? 6.5 miles on road to Tuxtepec

Senecio anisophyllus Klatt

2 specs

7604 - Oaxaca
In open rich woodland on the crest of a ridge in the mountains about 53 road miles E north of Oaxaca and 13 miles north of the summit between Oaxaca and Tuxtepec, State of Oaxaca, Mexico. Elevation about 9400 feet
Flowers pink,
Stevia elongata HBK.

Senecio callosus Sch.-Bip.

9651 - October 11, 1962.

Nat. Forest Reserve
in mixed pine-oak
forest [illegible] in the
mountains about
52 [illegible] miles
[illegible] and 14 miles
south of the [illegible]
[illegible] Mexico.
[illegible]
[illegible]
[illegible]

"Astranthium" mexicanum (Gray)
Larsen

dupl. det. Dick C. O. VanSoest, 1963

Eriogonum (?) ✓

Senecio sanguisorbae DC.

Senecio

9653 - [illegible] 11, 1902

[illegible] pleurotus [illegible]

[illegible], chirping and
resting at the [illegible]
[illegible] at [illegible].
Dish [illegible] ik. yellow,
Keeps [illegible] yellow,
- [illegible] mostly 13.

Siegesbeckia repens
Robins.
Dupl. det E. keith Longpre

✓

rep/3
mcd (4)

[illegible] Oct. 12, 1962
In moist pine-oak woods
in the mountains about 48
road miles north of Oaxaca,
and 17 road miles south
of the pass between Oaxaca
and Tuxtepec, state of
Oaxaca, Mexico, Flowering
branches. Disk florets
fertile, white above,
[illegible]
3-[illegible]
[illegible] 13,
Chromosome number det. by B. L. Turner,
as n = ca. 24. Recollected by [illegible].
Pappus none.
Sabazia liebmanii (Sch.-Bip.) Klatt
dupl. det. E. Keith Longpre

Lamprocaccus 9654.
Rays mostly 8,
lavender-purple.
Disk-corollas dark
blackish purple, but
the exserted anthers
conspicuous and yellow.

Dahlia pinnata Cav.

7656- October 12, 1962
Same place as 7654.
Heads lemon yellow.

Hieracium abscissum Less.

/

t.v.

Hieracium (4)

Camp [illegible]

703.2 B.M. Camp.

704.7 at summit

[illegible]

[illegible]

[illegible]

[illegible]

718.8 at pasture locality

93.0

721.8 Camp, 9300 ft.

143 Tezuitlan
375
571.5 at jct La Tinaja
627.6 at Tuxtepec

36 [illegible]
= 10 miles [illegible]
7200 feet.
[illegible]
57. at Lamiquipa.
64. at [illegible]
= 64 [illegible]

[illegible]
1333 Tulancingo
1564 at Puebla
660 Huachinango
[illegible]
[illegible]
[illegible]
[illegible]

737.7 Les Guadalajara
598.6 Zapotlanejo

808.0
7 miles to 6300'
Atotonilco
-65 from G
837.5 at M-J. Junction
837.8 at Plantas
44.5 ↗ La Piedad
66.0 at Penjamo
78.5 above Yurona
97.0 Irapuato

1314.3 at Comp-Lyd 38
3 miles w / Durango
13330 at Magdalena
44.7 at Villa Unión
471. at Acaponeta
83. Culiacán
1341 1. Peñita Tuxpan
1355 4.7 Tepic
56.7 "
76.0 to Laguna
88.0 at Laguna
600. at Tepic
620, at Tepic - 3200'
67 6.3 at Ahuacatlan
1364 4.4 at grassy hill.
83.4 at Tequila